

Population Health Management Model Has Reduced Health Care Costs for Diabetes, Hypertension, Dyslipidemia in South Carolina

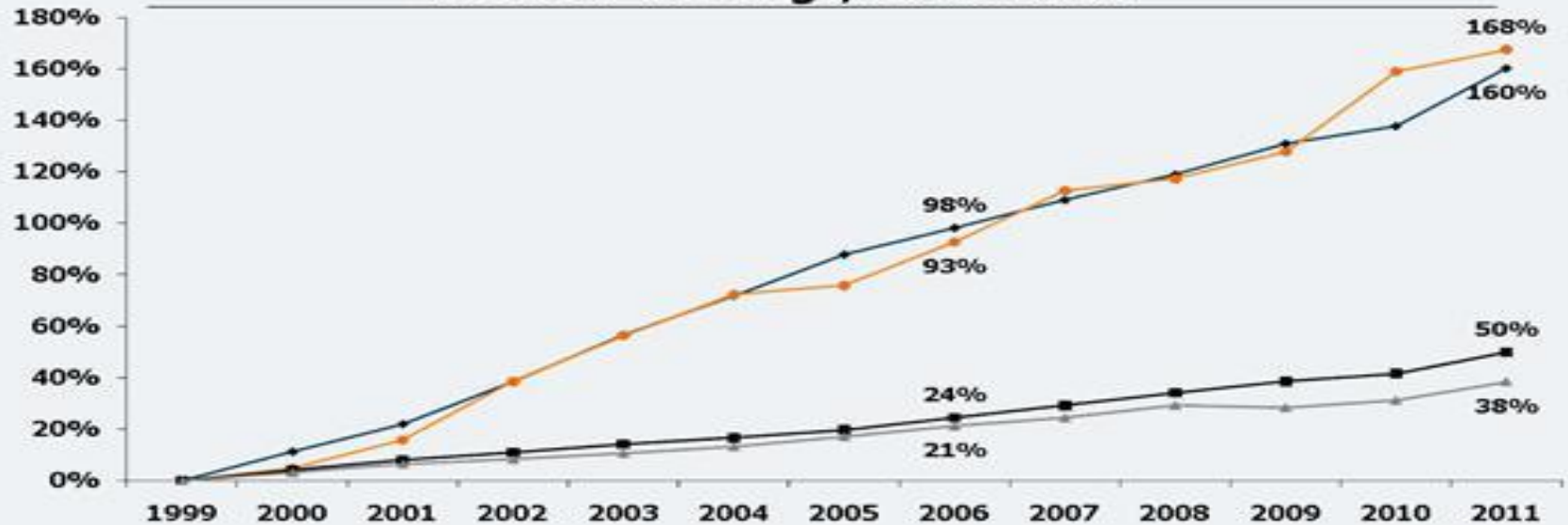


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RIISING HEALTH CARE COSTS

Cumulative Increases in Health Insurance Premiums, Workers' Contributions to Premiums, Inflation, and Workers' Earnings, 1999-2011



Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2011. Bureau of Labor Statistics, Consumer Price Index, U.S. City Average of Annual Inflation (April to April), 1999-2011; Bureau of Labor Statistics, Seasonally Adjusted Data from the Current Employment Statistics Survey, 1999-2011 (April to April).



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Successful blood sugar control reduces risk:

Eye damage (76%)

Kidney disease (50%)

Nerve disease (60%)

Cardiovascular disease (42%)

Nonfatal heart attack, stroke (57%)



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UNDERLYING PRINCIPLES

- ✓ 15% of people spend 85% of health care costs
- ✓ Most high utilizers have something in common, they tend to suffer from the same types of chronic diseases
- ✓ Many of the things that cause their instability and drive costs are identifiable and controllable

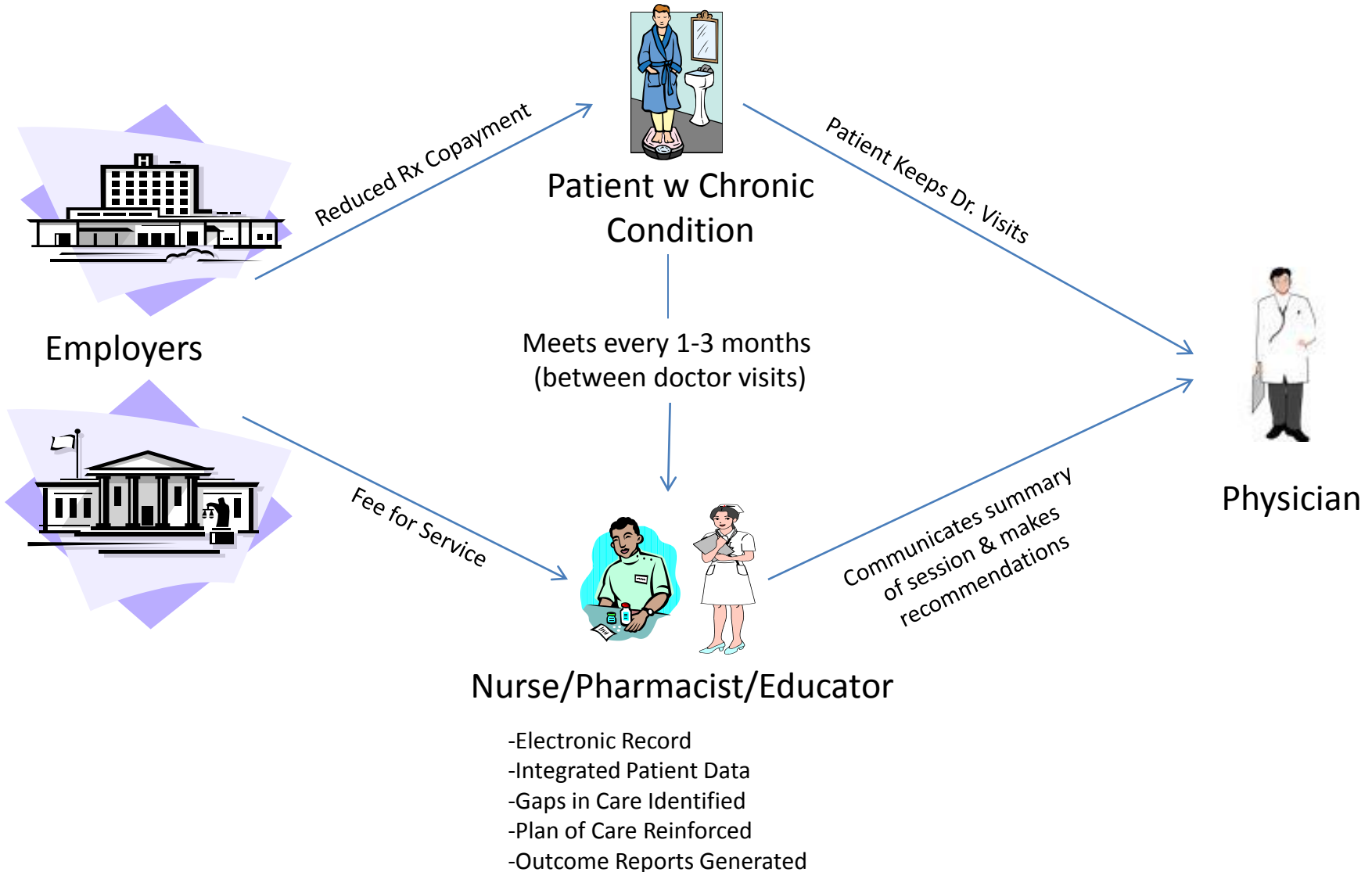
The Solution

- ✓ Identify high cost/high risk conditions that could be managed better
- ✓ Meet face-to-face regularly with individuals with high risk conditions
- ✓ Proactively & regularly assess education/treatment/outcomes
- ✓ Establish the highest levels of accountability and control
- ✓ Stop ignoring people who are not hitting their therapeutic targets
- ✓ Clearly measure results vs. national standards

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Improved Asheville Model



OUTCOMES



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PUTTING THE MODEL TO WORK IN SOUTH CAROLINA

Disease State	Group A	Group B	Group C
Diabetes	104	110	151
High Cholesterol	95	81	37
High Blood Pressure	95	143	80

- * Participant groupings do not overlap. Group A = those enrolled in a disease management program for 6 or more months but less than 12 months; Group B = those enrolled in a disease management program for 12 or more months but less than 24 months; Group C = those enrolled in a disease management program for 24 or more months.

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THOUSANDS OF PATIENT ENCOUNTERS



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IMPACT ON UTILIZATION OF HEALTH CARE

Utilization Findings

- 16.6% decrease in ER visits for the diabetes group (36 to 30)
- 40% decrease in hospitalizations for the diabetes group (15 to 9)
- 81.8% decrease in ER visits for the hyperlipidemia group (11 to 2)
- 100% decrease in hospitalizations for the hyperlipidemia group (1 to 0)
- 55.2% decrease in ER visits for the hypertension group (29 to 13)
- 40% decrease in hospitalizations for the hypertension group (10 to 6)
- Prescription utilization consistently increased and medical utilization consistently decreased

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THE BOTTOM LINE IS THE BOTTOM LINE

Diabetes Program- Managed Participants

- Year-1 health plan cost ↓23.21% (123 Participants)
- Year-2 health plan cost ↓52.93% (38 Participants)
- ROI average over 2 years: \$9.41:1 (161 Participants)

Hyperlipidemia (cholesterol) Program- Managed Participants

- Year-1 health plan cost ↓19.72% (46 Participants)
- Year-2 health plan cost ↓10.22% (12 Participants)
- ROI average over 2 years: \$2.94:1 (58 Participants)

Hypertension Program- Managed Participants

- Year-1 health plan cost ↓16.78% (116 Participants)
- Year-2 health plan cost ↓1.82% (23 Participants)
- ROI average over 2 years: \$2.15:1 (139 Participants)



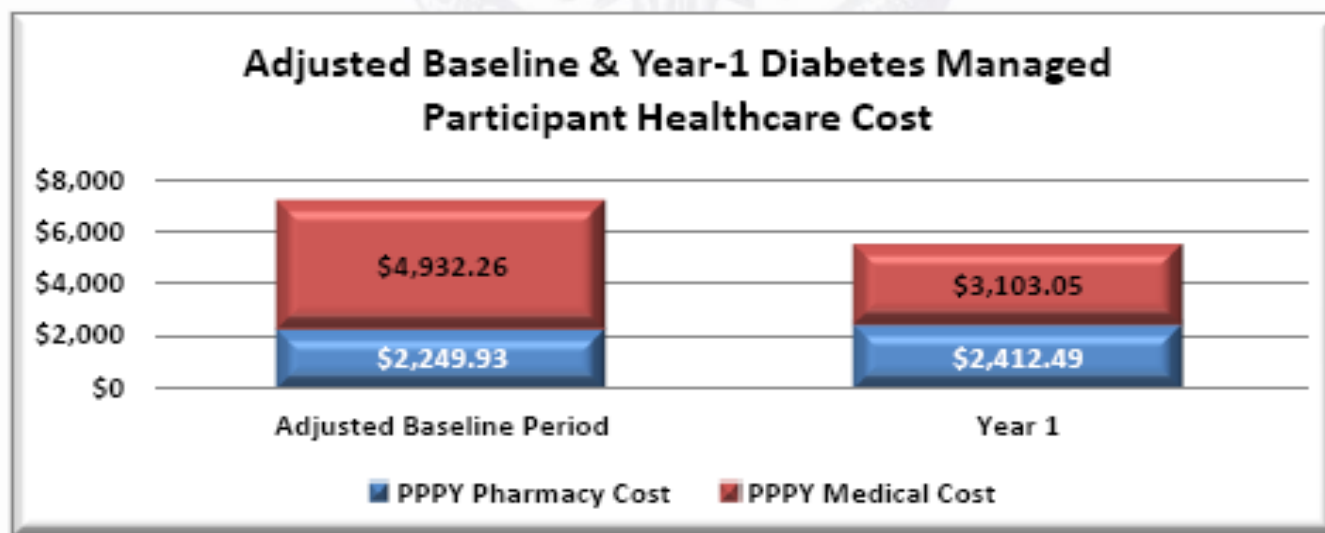
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COST IMPACT FOR 123 DIABETES PARTICIPANTS AFTER 12 MONTHS

Overview of One hundred and twenty-three (123), First-year Program Managed Participants

- four (4) hospital admits [ten (10) for the year prior to enrollment]
- twenty-one (21) ER visits [twenty-seven (27) for the year prior to enrollment]
- prescription cost increased by \$162.57 PPPY (\$276,740.94 to \$296,736.81)
- medical cost decreased by \$1,829.20 PPPY (\$606,667.42 to \$381,675.52)
- total healthcare costs decreased by \$1,666.63 PPPY (\$883,408.36 to \$678,412.33)
- aggregate savings (medical and RX) of \$204,996.03, a savings of 23.21%



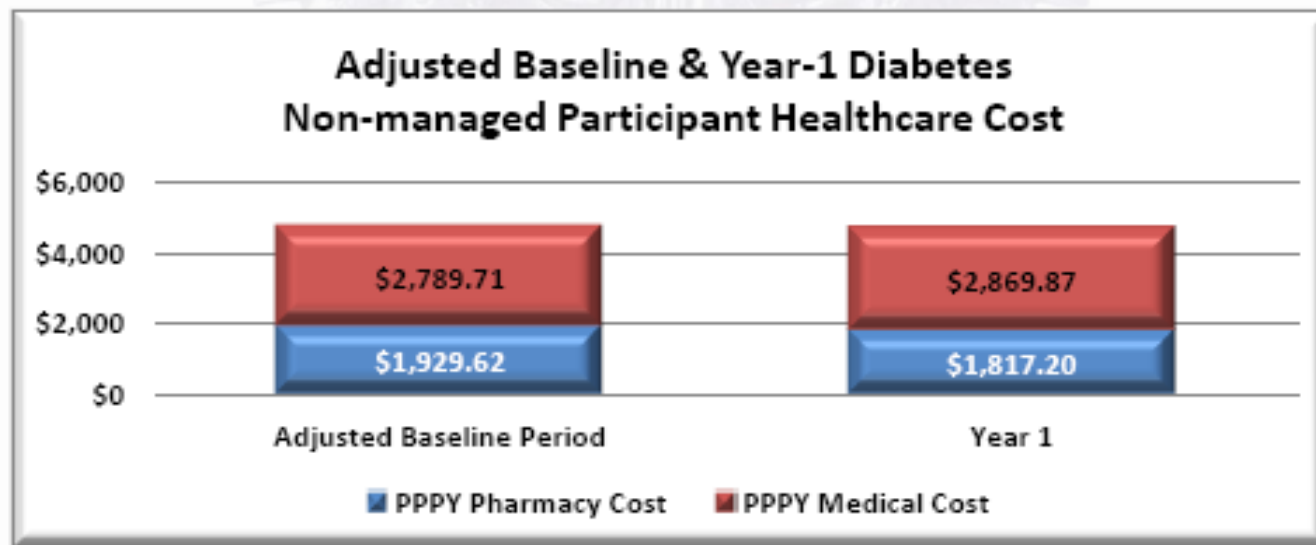
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COST CHANGE FOR 353 DIABETIC NON-PARTICIPANTS OVER SAME 12 MONTHS

Overview (353 individuals analyzed using same criteria as the managed population)

- Non-managed group's total healthcare costs ↓0.01% (\$32.26 PPPY)
- The managed group's total healthcare costs ↓23.21% (\$1,666.63 PPPY)
- Managed group's medical cost decreased by 25.5% vs. non-managed increase of 2.9%
- Managed group's prescription cost increased by 7.2% vs. non-managed decrease of 5.8%
- Note that the managed group's baseline total healthcare costs were 52.2% higher than the baseline of the non-managed group



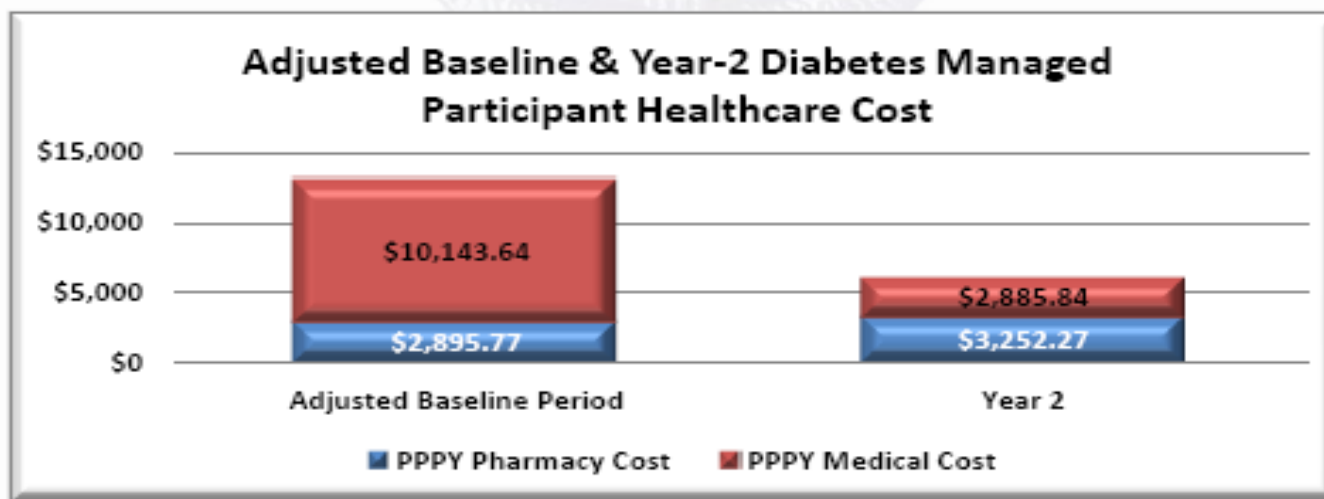
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COST IMPACT FOR 38 DIABETES PARTICIPANTS AFTER 24

Overview of Thirty-eight (38), Second-year Program Managed Participants

- five (5) hospital admits [five (5) for the year prior to enrollment]
- nine (9) ER visits [nine (9) for the year prior to enrollment]
- prescription cost increase by \$356.51 PPPY (\$110,039.22 to \$123,586.26)
- medical cost decrease by \$7,257.80 PPPY (\$385,458.32 to \$109,661.92)
- total healthcare costs decreased by \$6,901.29 PPPY (\$495,497.51 to \$233,248.39)
- aggregate savings (medical and RX) of \$9,901.29, a savings of 52.93%



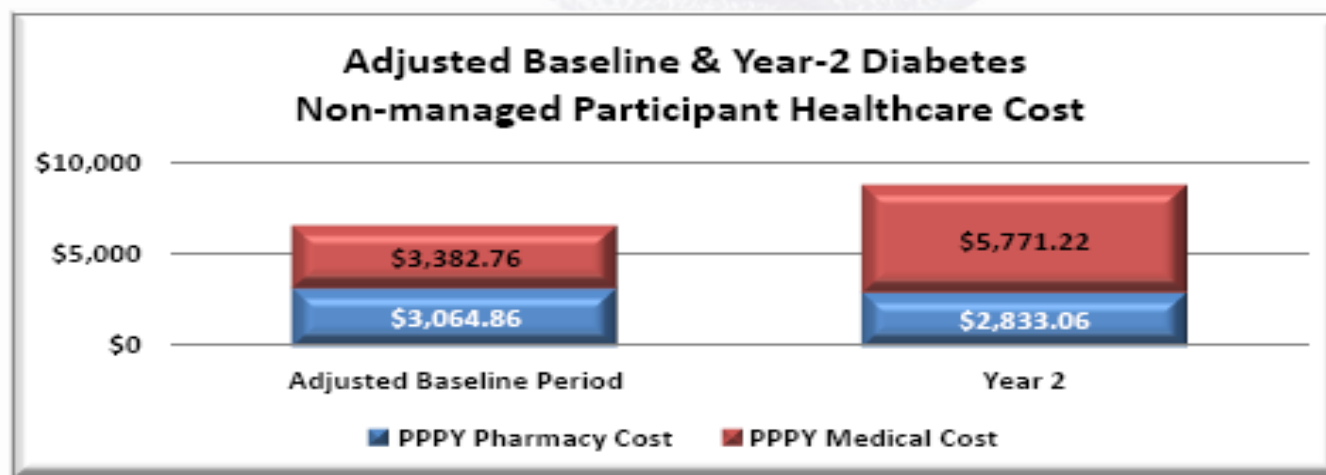
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COST CHANGE FOR 45 DIABETIC NON-PARTICIPANTS OVER SAME 24 MONTHS

Overview (45 individuals analyzed using same criteria as the managed population)

- Non-managed individual's total healthcare costs ↑ 33.45% (\$2,156.66 PPPY)
- The managed group's total healthcare costs ↓ 52.93% (\$6,901.29 PPPY)
- Managed group's medical cost decreased by 71.6% vs. non-managed increase of 70.6%
- Managed group's prescription cost increased by 12.3% vs. non-managed decrease of 7.6%
- It is significant to note that the managed group's historical costs were more than double the non-managed group's historical costs (\$13,039.41 vs. \$6,447.62 PPPY), however, after 2 years the managed group's average costs are now lower than the non-managed group (\$6,138.11 vs. \$8,604.28)



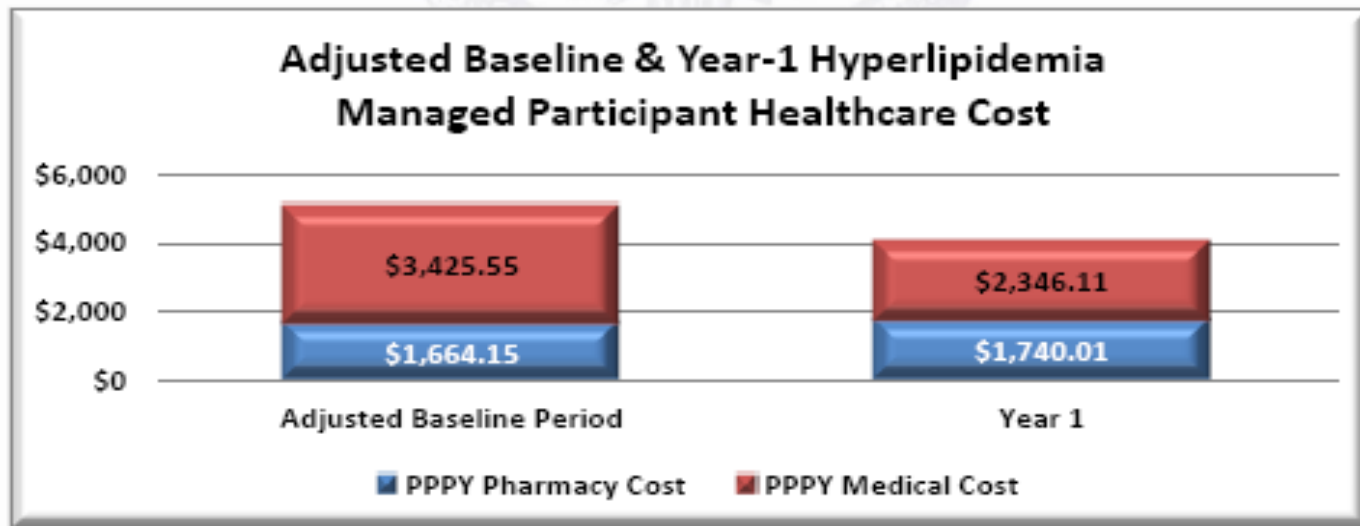
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COST IMPACT FOR 46 HYPERLIPIDEMIA PARTICIPANTS AFTER 12 MONTHS

Overview of Forty-six (46), First-year Program Managed Participants

- zero (0) hospital admits [one (1) for year prior to enrollment]
- two (2) ER visits [eight (8) for the year prior to enrollment]
- prescription cost increase by \$75.86 PPPY (\$76,550.75 to \$80,040.25)
- medical cost decrease by \$1,079.44 PPPY (\$157,575.11 to \$107,921.06)
- total healthcare cost decreased by \$1,003.58 PPPY (\$234,125.86 to \$187,961.31)
- aggregate savings (medical and RX) of \$46,164.55, a savings of 19.72%



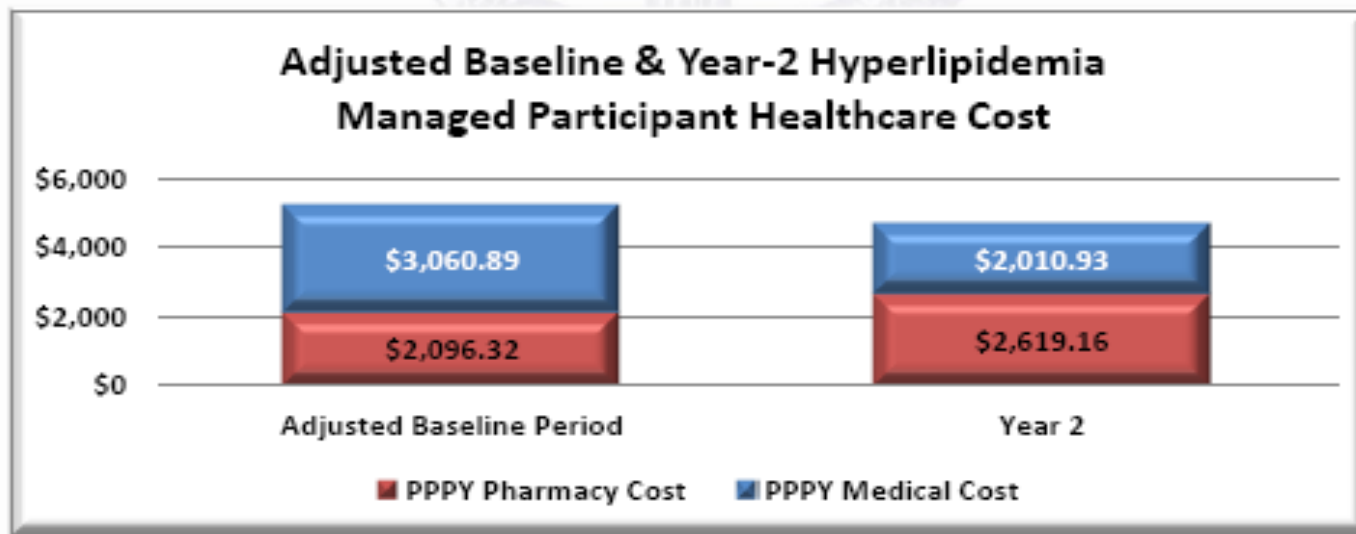
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COST IMPACT ON 12 HYPERLIPIDEMIA PARTICIPANTS AFTER 24 MONTHS

Overview of Twelve (12), Second-year Program Managed Participants

- zero (0) hospital admits [zero (0) for year prior to enrollment]
- zero (0) ER visits [three (3) for year prior to enrollment]
- prescription cost increase by \$522.84 PPPY (\$25,155.84 to \$31,429.94)
- medical cost decrease by \$1,049.96 PPPY (\$36,730.66 to \$24,131.14)
- total healthcare cost decreased by \$527.12 PPPY (\$61,886.50 to \$55,561.08)
- aggregate savings (medical and RX) of \$6,325.42, a savings of 10.22%



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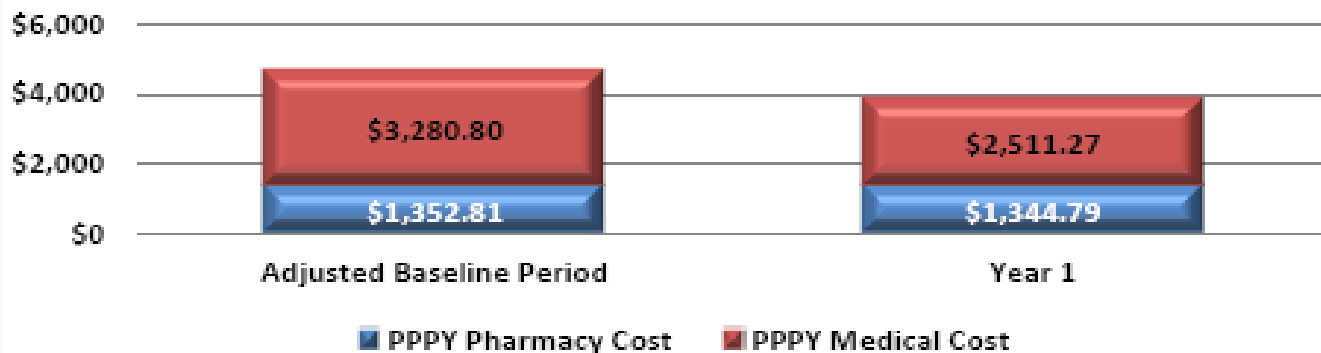
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COST IMPACT ON 116 HYPERTENSION PARTICIPANTS AFTER 12 MONTHS

Overview of One hundred and sixteen (116), First-year Program Managed Participants

- six(6) hospital admits [six (6) for year prior to enrollment]
- twelve (12) ER visit [twenty-three (23) for year prior to enrollment]
- prescription cost decrease by \$8.02 PPPY (\$156,925.96 to \$155,995.64)
- medical cost decrease by \$769.53 PPPY (\$380,572.80 to \$291,307.32)
- decrease in total healthcare cost by \$777.55 (\$537,498.60 to \$447,303.03)
- aggregate savings (medical and RX) of \$90,195.80, a decrease of 16.78%

Adjusted Baseline & Year-1 Hypertension Managed Participant Healthcare Cost



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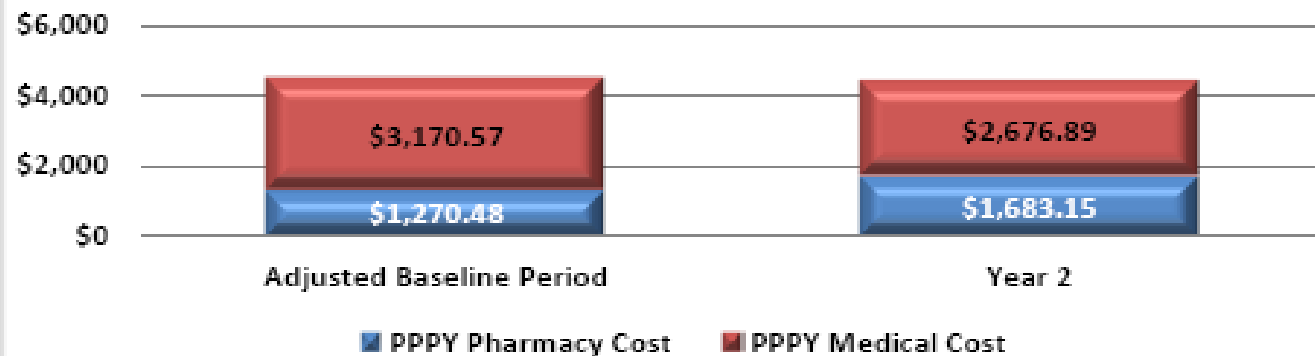
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COST IMPACT ON 23 HYPERTENSIVE PARTICIPANTS AFTER 24 MONTHS

Overview of Twenty-three (23), Second-year Program Managed Participants

- zero (0) hospital admits [four (4) for year prior to enrollment]
- one (1) ER visit [seven (7) for year prior to enrollment]
- prescription cost increase by \$412.67 PPPY (\$29,221.03 to \$38,712.36)
- medical cost decrease by \$493.68 PPPY (\$72,923.03 to \$61,568.39)
- total healthcare costs decreased by \$81.01 PPPY (\$102,144.06 to \$100,280.75)
- aggregate decrease (medical and RX) of \$1,863.23, a savings of 1.82%

Adjusted Baseline & Year-2 Hypertension Managed Participant Healthcare Cost



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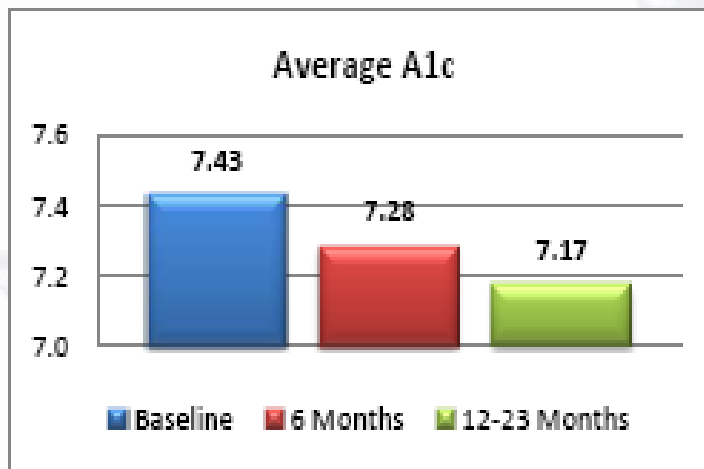
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IMPACT ON A1c LEVELS FOR 110 DIABETES PARTICIPANTS AFTER 12 MONTHS

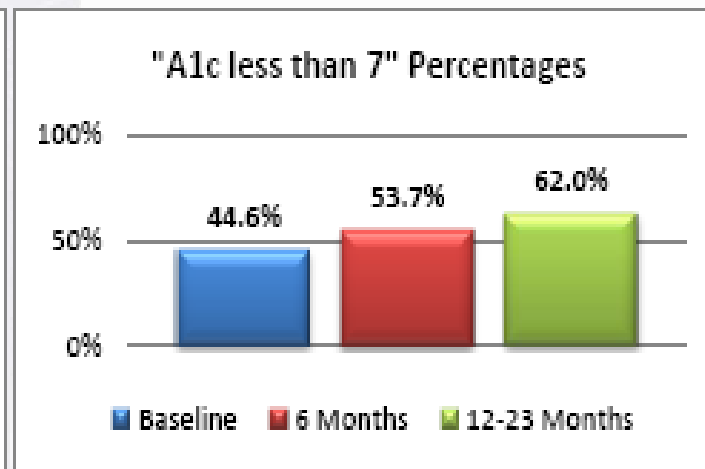
Twelve-month Diabetes Mellitus Clinical Evaluation

One hundred ten (110) participants met the inclusion criterion of being enrolled in the diabetes disease management program for at least 12 months, but less than 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 12-month measurements. These evaluations show the progress in participant health while in the program.

1-D-12



2-D-12



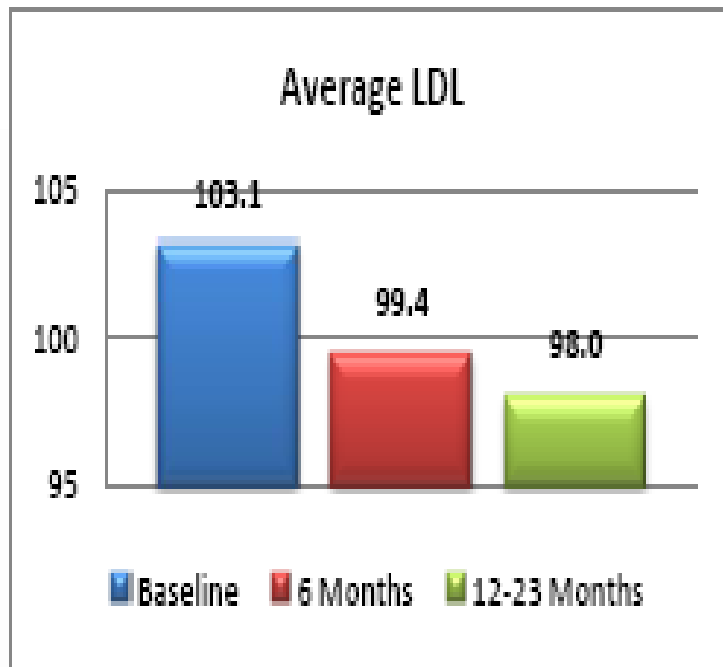
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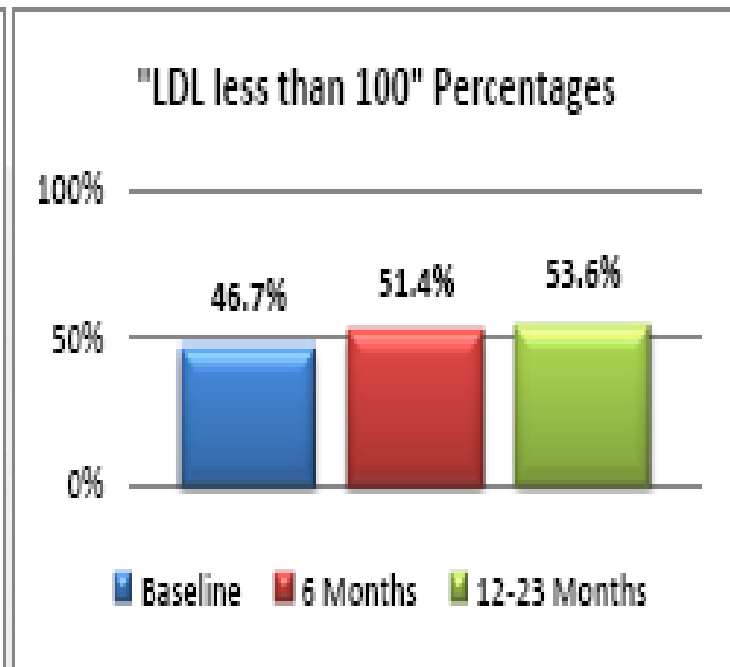
IMPACT ON LDL LEVELS FOR 110 DIABETES PARTICIPANTS AFTER 12 MONTHS

Number meeting twelve-month report criterion for diabetes management = 110

4-D-12



5-D-12



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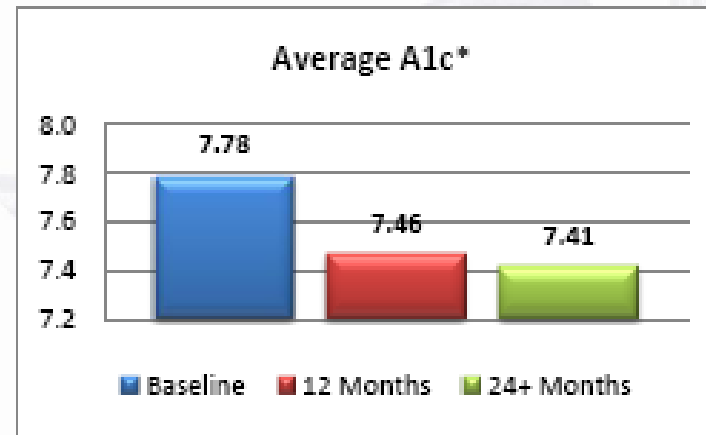
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IMPACT ON A1c LEVELS FOR 151 DIABETES PARTICIPANTS AFTER 24 MONTHS

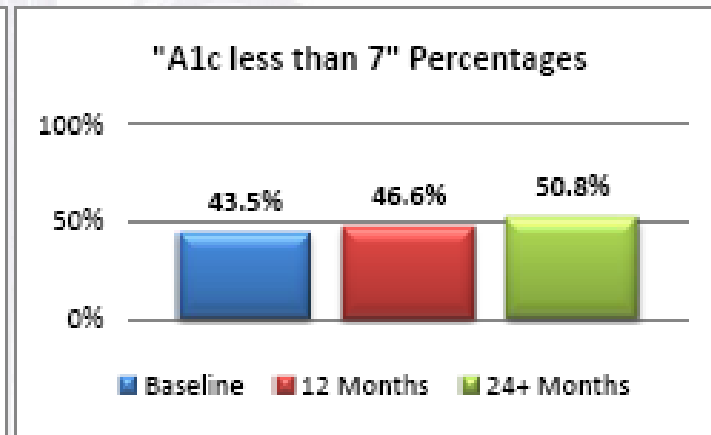
Twenty-four-month Diabetes Mellitus Clinical Evaluation

One hundred fifty-one (151) participants met the inclusion criterion of being enrolled in the diabetes disease management program for at least 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 24-month measurements. These evaluations show the progress in participant health while in the program.

1-D-24



2-D-24



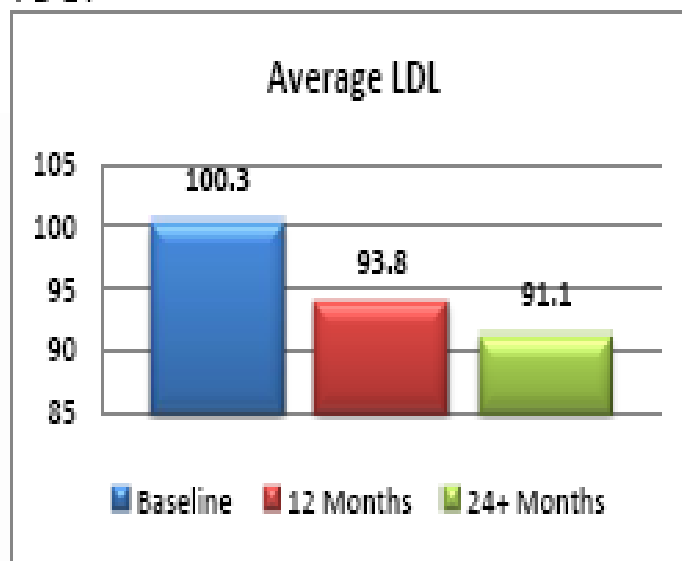
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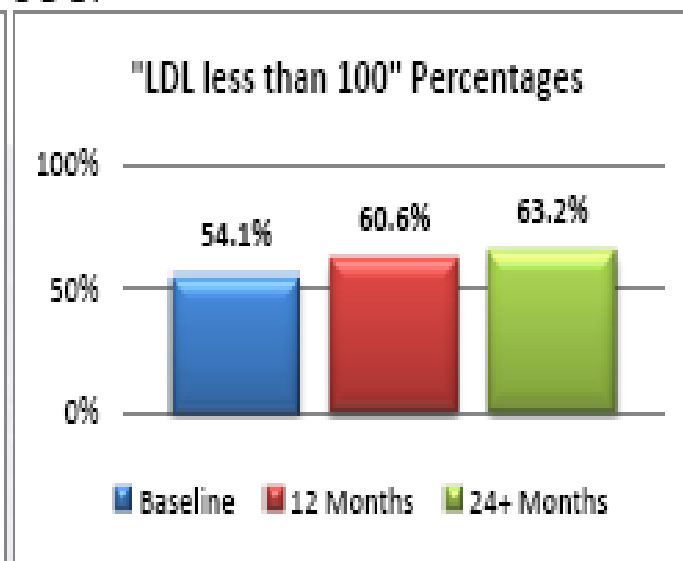
IMPACT ON LDL LEVELS FOR 151 DIABETES PARTICIPANTS AFTER 24 MONTHS

Number meeting twenty-four-month report criterion for diabetes disease management = 151

4-D-24



5-D-24



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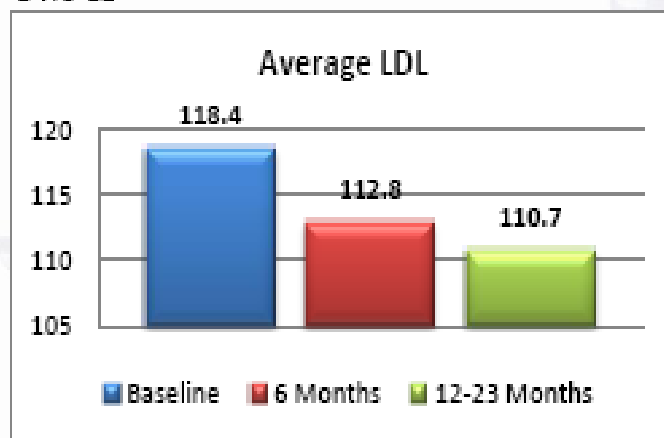
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IMPACT ON LDL LEVELS FOR 81 HYPERLIPIDEMIA PARTICIPANTS AFTER 12 MONTHS

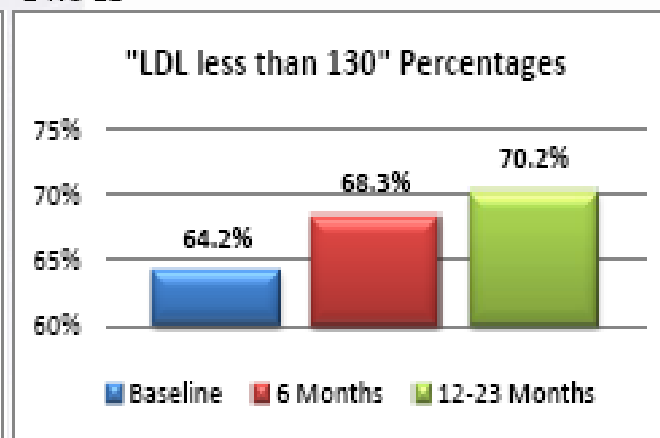
Twelve-month High Cholesterol Clinical Evaluation

Eighty one (81) participants met the inclusion criterion of being enrolled in the high cholesterol disease management program for at least 12 months but less than 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 12-month measurements. These evaluations show the progress in participant health while in the program.

1-HC-12



2-HC-12



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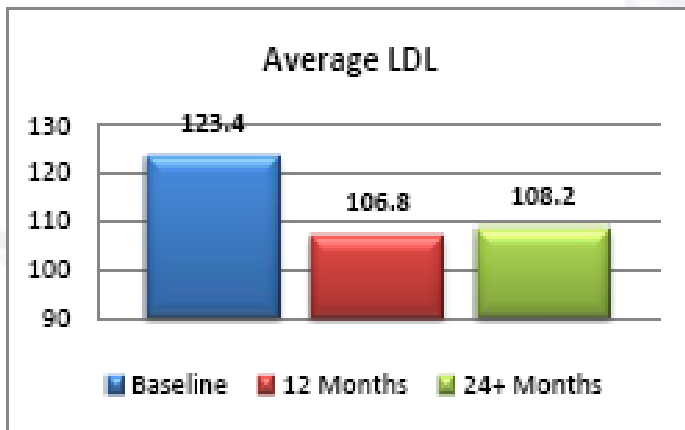
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IMPACT ON LDL LEVELS FOR 37 HYPERLIPIDEMIA PARTICIPANTS AFTER 24 MONTHS

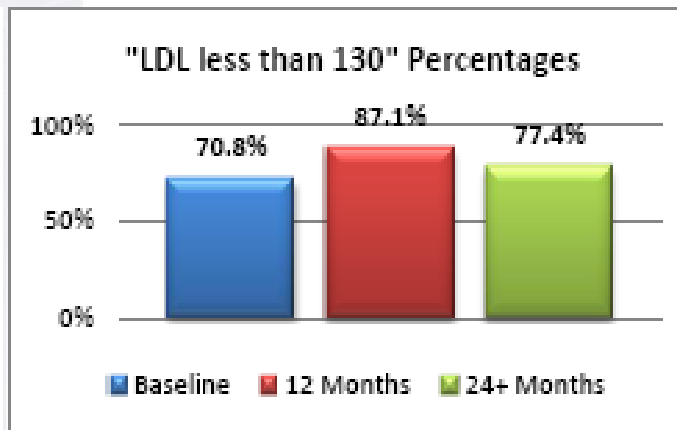
Twenty-four-month High Cholesterol Clinical Evaluation

Thirty seven (37) participants met the inclusion criterion of being enrolled in the high cholesterol disease management program for at least 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 24-month measurements. These evaluations show the progress in participant health while in the program.

1-HC-24



2-HC-24



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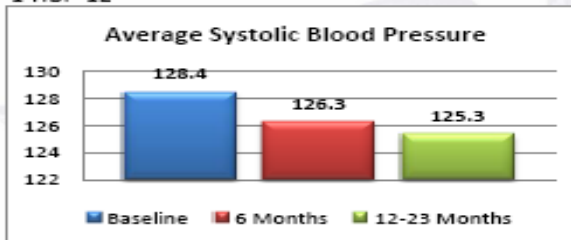
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IMPACT ON BLOOD PRESSURE FOR 143 HYPERTENSION PARTICIPANTS AFTER 12 MONTHS

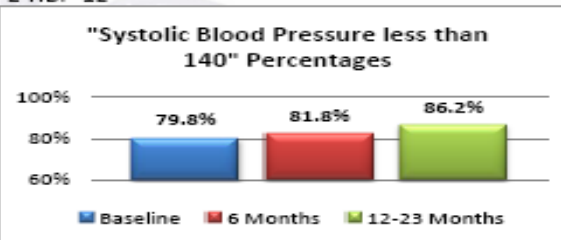
Twelve-month High Blood Pressure Clinical Evaluation

One hundred forty-three (143) participants met the inclusion criterion of being enrolled in the high blood pressure disease management program for at least 12 months but less than 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 12-month measurements. These evaluations show the progress in participant health while in the program.

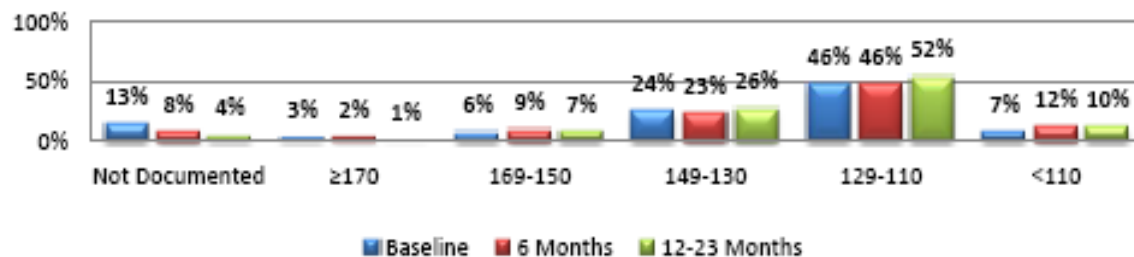
1-HBP-12



2-HBP-12



Distribution by Systolic Blood Pressure



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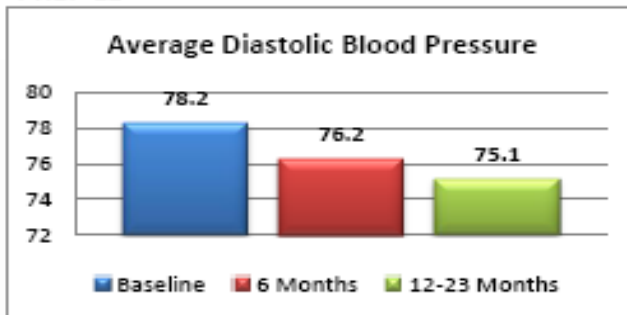
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IMPACT ON BLOOD PRESSURE FOR 143 HYPERTENSION PARTICIPANTS AFTER 12 MONTHS

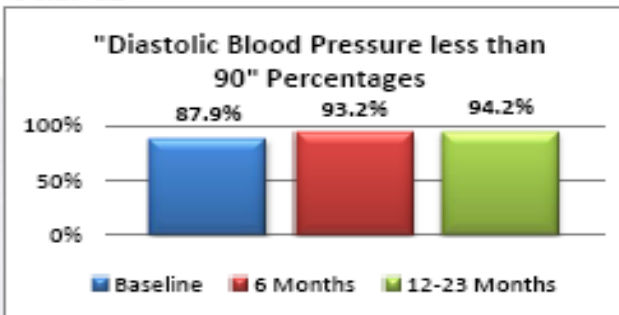
2

Number meeting twelve-month report criterion for high blood pressure disease management = 143

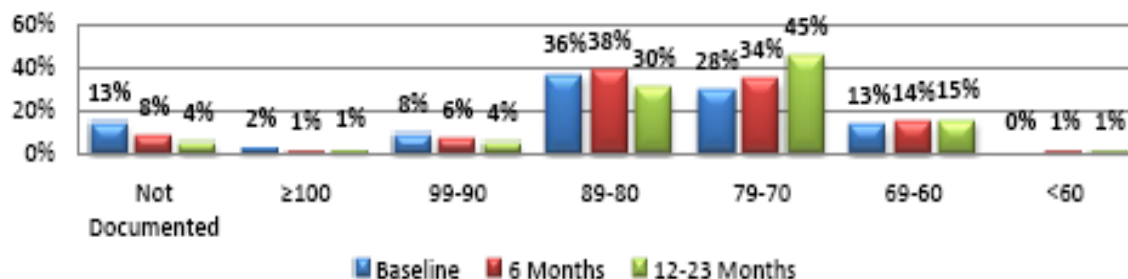
4-HBP-12



5-HBP-12



Distribution by Diastolic Blood Pressure



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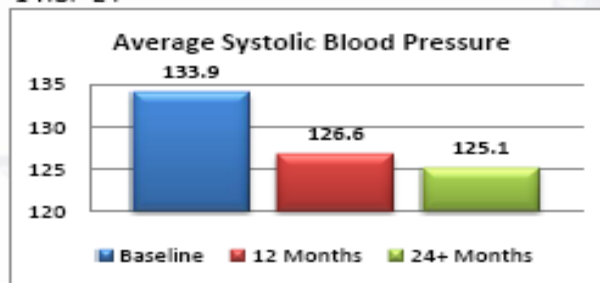
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IMPACT ON BLOOD PRESSURE FOR 80 HYPERTENSION PARTICIPANTS AFTER 24 MONTHS

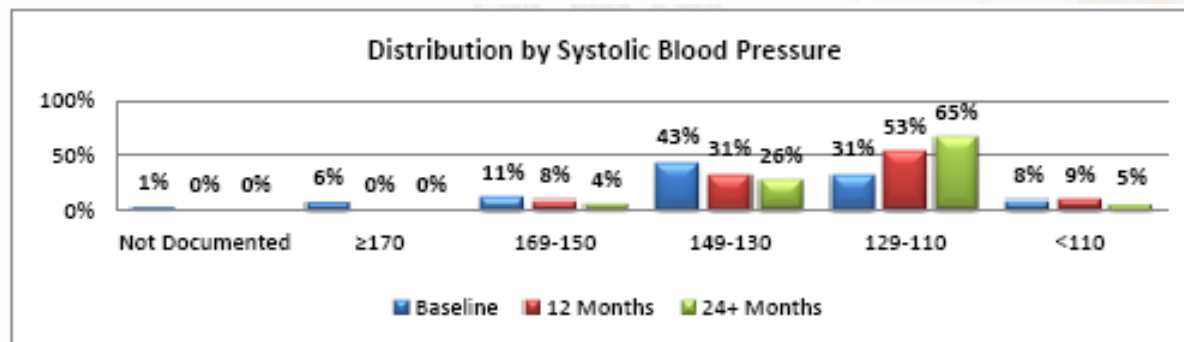
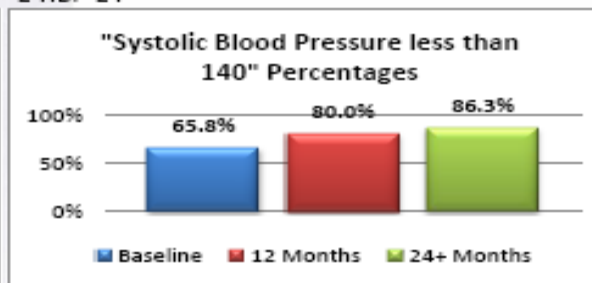
Twenty-four-month High Blood Pressure Clinical Evaluation

Eighty (80) participants met the inclusion criterion of being enrolled in the high blood pressure disease management program for at least 24 months. The charts below evaluate the baseline measurements (values obtained when first entering the program) against the 24-month measurements. These evaluations show the progress in participant health while in the program.

1-HBP-24



2-HBP-24



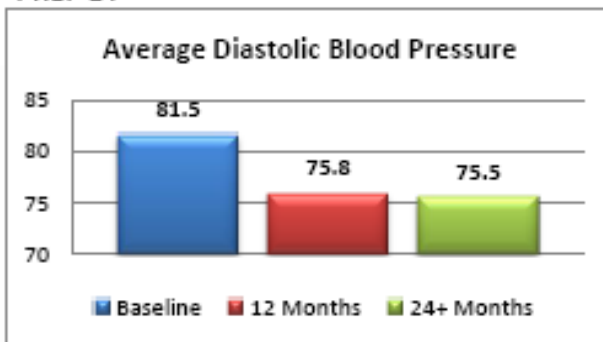
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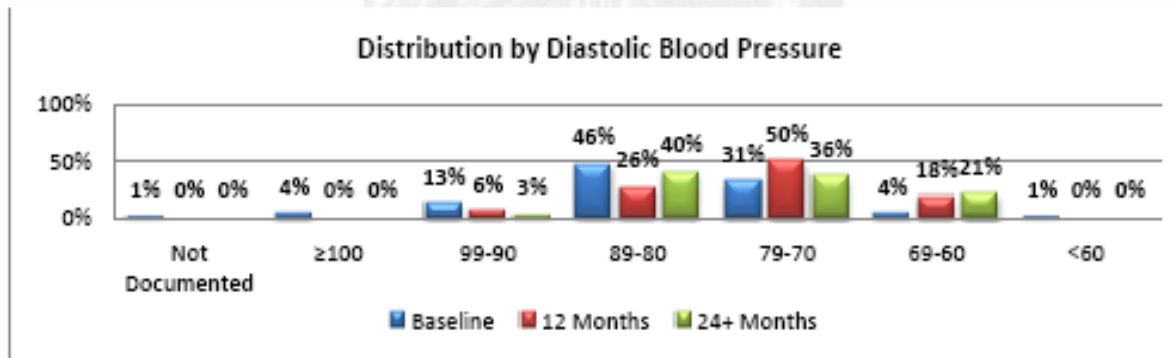
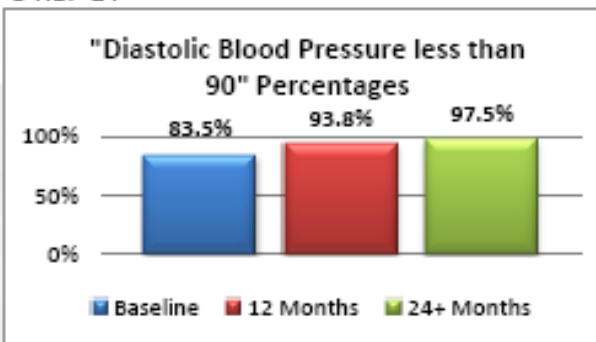
IMPACT ON BLOOD PRESSURE FOR 80 HYPERTENSION PARTICIPANTS AFTER 24 MONTHS

Number meeting twenty-four-month report criterion for high blood pressure disease management = 80

4-HBP-24



5-HBP-24



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Thank You!

QUESTIONS?

For additional information please contact American Health Care at (916) 773-7227
info@americanhealthcare.com.

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